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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/019,179	12/21/2001	Richard Besselievre	CM2174M	1314

27752 7590 01/25/2005

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EXAMINER

HARDEE, JOHN R

ART UNIT	PAPER NUMBER
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1751

DATE MAILED: 01/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/019,179

Applicant(s)

BESSELIEVRE ET AL.

Examiner

John R. Hardee

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 21-46 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 21-23, 25-28, 35-37 and 44-46 is/are rejected.
- 7) ☒ Claim(s) 24, 29-34 and 38-43 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |  |
|---|--|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____  |

## **DETAILED ACTION**

### ***Claim Interpretation***

1. While step b as recited in claims 41, 43 and 45 is optional, step c, based on the examiner's reading of the specification, appears to be mandatory. The claims have been searched and examined on that basis.

### ***Double Patenting***

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claims 35, 36 and 39-46 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 25, 26, 40, 44-48, 51-53 and 56 of copending Application No. 10/019,177. Although the conflicting claims are not identical, they are not patentably distinct from each other because the present claims are drawn to reaction products of PEI with aldehydes or ketones, and the '177 recites process for making same, as well as reaction products. Where the present method claims recite method steps which are not obvious over the '177, it appears that the ultimate products recited herein can be made by the processes

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recited in the '177. It is incumbent upon the applicant to demonstrate that the recited product by process limitations lead to different products from those of the '177.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

4. Claims 35, 36 and 39-46 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 24, 25, 31-35 and 39-48 of copending Application No. 10/019,178. Although the conflicting claims are not identical, they are not patentably distinct from each other because the present claims are drawn to reaction products of PEI with aldehydes or ketones, and the '178 recites process for making same, as well as reaction products. Where the present method claims recite method steps which are not obvious over the '178, it appears that the ultimate products recited herein can be made by the processes recited in the '178. It is incumbent upon the applicant to demonstrate that the recited product by process limitations lead to different products from those of the '178.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

### ***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claim 37 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant

regards as the invention. The claim recites "a composition according to claim 30..." where claim 30 is a process claim.

***Claim Rejections - 35 USC § 102***

7. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
8. Claims 21-23, 25, 26, 27, 35, 39 and 40 are rejected under 35 U.S.C. 102(b) as being anticipated by Derkach, US 5,378,414. The reference discloses food packaging materials comprising a layer of polyethyleneimine. The PEI selectively reacts with aldehydes and ketones, notably pentanal, hexanal and heptanal, which are formed from the decomposition of unsaturated fats (col. 1, lines 59+; col. 3, lines 45+). Packaged foods are generally kept at constant temperature, and oily foods, such as potato chips (col. 3, lines 52+) are stored at the recited temperatures. "Recovering the amine reaction product" amounts to unwrapping the food before use, which may be fairly inferred. Claims 26 and 27 recite intended use and does not define the invention over the prior art. The product by process limitations of claims 39 and 40 do not further define the product over the products of the disclosed process, in the absence of evidence to the contrary.

***Claim Rejections - 35 USC § 103***

9. Claims 21-23, 25-28, 35, 39 and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Derkach, US 5,378,414. The reference is summarized above. The

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species recited in claims 28 are not disclosed. However, it would have been obvious at the time that the invention was made to make PEI reaction products with these materials, because citral, cinnamaldehyde and carvones are commonly encountered in packaged foods.

10. Claims 21-23, 25-27, 35, 39 and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cohen et al., US 5,009,239. The reference discloses cigarette filters modified with PEI for selective removal of aldehyde smoke components (col. 2, lines 20+). The recited range includes the temperature at which smoke encounters a cigarette filter. Claims 25-27 recite intended use and do not define the invention over the prior art. This reference differs from the claimed subject matter in that it does not disclose a composition which reads on applicant's claims with sufficient specificity to constitute anticipation. The product by process limitations of claims 39 and 40 do not further define the product over the products of the disclosed process, in the absence of evidence to the contrary.

It would have been obvious at the time the invention was made to make such a composition, because this reference teaches cigarette filters comprising PEI are useful for removing aldehydic components from smoke.

In the case where the claimed ranges overlap or lie inside ranges disclosed by the prior art, a *prima facie* case of obviousness exists. *In re Wertheim*, 541 F.2d 257, 191 USPQ 90 (CCPA 1976); *In re Woodruff*, 919 F.2d 1575, 16 USPQ2d 1934 (Fed Cir. 1990).

***Allowable Subject Matter***

11. Claims 24, 29-34, 38-43 and 38 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

12. The following is a statement of reasons for the indication of allowable subject matter: The closest prior art of record is the references relied upon above. The particle formation steps are not disclosed in the prior art, nor is mixing in a mixing vessel or a twin-screw extruder. The person of ordinary skill in the chemical art would expect the reactions as recited in the '177 and 178 to take place in the presence of a drying agent and/or a solvent, as removal of evolved water drives the reaction to completion.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to the examiner, Dr. John R. Hardee, whose telephone number is (571) 272-1318. The examiner can normally be reached on Monday through Friday from 8:00 until 4:30. In the event that the examiner is not available, his supervisor, Dr. Yogendra Gupta, may be reached at (571) 272-1316.

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

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you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read "J. Hardee", with a long horizontal line extending to the right.

John R. Hardee  
Primary Examiner  
January 19, 2005